Department of Energy
Germantown, MD 20874-1290

February 19, 1998

Dear Colleague:

Re: Final Announcement for the Budget Planning Meeting-Fiscal Year 2000

The FY 1999 Presidential budget was made public on February 2, 1998. Please feel free to call your OFES program manager if you need further information. I am now sending you the final announcement for the FY 2000 Budget Planning meeting with several points of clarification and with a more complete agenda (Attachment 1):

1. In the first announcement for the FY 2000 Budget Planning meeting, I indicated that the FY 2000 budget proposals should be based on the FY 1999 Presidential Budget Request and you should assume that the budget remains flat in FY 2000. This means truly flat, i.e., not escalated for inflation.

2. Please suggest 1-3 accomplishments that you expect in your program in each year for FY 1998-FY 2000 within the flat budgets. Please write these accomplishments in plain English so that we may use some of these in writing the FY 2000 budget documents. As you might be aware, the new Government Performance Act requires listing program performance measures. The high level measures we used in the FY 1999 budget document are listed in Attachment 2, for your information.

3. I have asked Ned Sauthoff to present information on the crosscutting topic of international collaboration. As you are aware, the budget shows direct funding for some of the collaborations at PPPL and ORNL, and some collaborations are carried out under the programs such as DIII-D, C-MOD, and NSTX, theory, etc. I am requesting you to identify briefly your plans for "substantial" international collaboration in FY 1998-FY 2000 (both outgoing and incoming) and forward this information to Erol Oktay and Ned Sauthoff by Monday, March 2, 1998. Ned will summarize this information in making the presentation at the meeting. By "substantial" I mean activities that have some coordinated activity and continuity, and not 1-week visits.

4. The Office of Energy Research (ER) is considering a possible computational science initiative for FY 2000. The success of the initiative depends crucially on the scientific advances that might result from it. As a first step towards establishing the scientific basis of the initiative, ER has held a series of seven crosscutting workshops. The next step will be for each program to develop a more detailed scientific basis for its elements of the computer science initiative. I have asked Bill Tang to summarize the fusion program's progress in planning for the computer science initiative.

5. We have reduced the time and scope for institutional presentations. The purpose of this session is to give the opportunity to the labs to provide additional information on critical lab issues to OFES in developing the FY 2000 budget.

.

I want to again remind you to focus your presentations on the primary purpose of the meeting, which is for the OFES managers to develop the FY 2000 budget, and identify key issues in your programs that need attention and discussion, not included in other parts of the presentations.

I have added a 2-hour concluding session with the DIII-D, C-Mod, and NSTX Program directors and Program Advisory Committee chairs to review the status of Advisory Committee activities. A separate agenda for this part of the meeting will be sent to the individuals involved next week.

John W. Willis
Director, Science Division
Office of Fusion Energy Sciences
Office of Energy Research

Attachments

Distribution:
D. Baldwin, GA
T. Simonen, GA
R. Stambaugh, GA
R. Freeman, GA
V. Chan, GA
J. Luxon, GA
R. Goldston, PPPL
R. Hawryluk, PPPL
W. Tang, PPPL
N. Sauthoff, PPPL
M. Peng, PPPL
M. Porkolab, MIT
I. Hutchinson, MIT
E. Marmar, MIT
J. Kesner, MIT
M. Saltmarsh, ORNL
J. Lyon, ORNL
R. Siemon, LANL
K. Thomassen, LLNL
B. Hooper, LLNL
R. Bangerter, LBL
M. Ulrickson, SNL
K. Wilson, SNL
D. Smith, ANL
G. Navratil, Columbia
M. Mauel, Columbia
R. Taylor, UCLA
M. Abdou, UCLA
R. Fonck, Wisconsin
S. Prager, Wisconsin
D. Anderson, Wisconsin
J. Callen, Wisconsin
R. Conn, UCSD
S. Luckhardt, UCSD
C. Baker, UCSD
A. Hoffman, Washington
T. Jarboe, Washington
J. Greenly, Cornell
D. Crandall, DOE
S. Dean, FPA

Department of Energy
Germantown, MD 20874-1290

February 19, 1998

Dear Colleague:

Re: Final Announcement for the Budget Planning Meeting-Fiscal Year 2000

We have scheduled the FY 2000 Science Division Budget Planning meeting for March 10-11, 1998, at DOE Germantown (Room A-410). The primary objective of the meeting is for the contractors, labs, and universities to provide information to OFES managers on the proposed plans and budgets for FY 2000 for most of the fusion science experiments in the U.S. Fusion Program. We have also included sessions on plans for selected institutions and discussion of other crosscutting topics. The suggested structure for the meeting is as follows:

- Comprehensive presentations on the program plans of each of the major facilities (DIII-D, C-MOD, NSTX);

- Briefer presentations on the smaller science experiments to provide us information on the status of the experiment, its objectives, and plans and budgets for FY 1998-FY 2000;

- Presentations on crosscutting topics (Theory & Modeling, Virtual Technology Laboratory, ITER, and International Collaborations).

- Presentations by each of the major institutions describing overall institutional research plans, staffing levels, and proposed budgets; and

- An overview and near-term plans of the IFE program (NIF status for information), and plans for the stellarator program.

Please base your proposals on the FY 1999 Presidential Budget Request and assume that the budget remains flat in FY 2000. Please formulate all proposals for upgrades or new initiatives beyond what is allowed within this guidance as incremental requests.

Guidance for Major Facilities:

The presentations on plans for major facilities should be keyed to the OFES budget categories--research, operations, and upgrades. Research plans should be described in terms of the science categories cited by FEAC[i]. Each presentation should include the following:

- A comprehensive description of research plans for FY 1998, FY 1999, and FY2000, including work to be carried out by collaborators and through international collaborations;
- A summary of the process for planning the research program, including prioritization within the science topical areas for machine time;
- Integrated national budget and manpower tables;
- A discussion of major program issues; and
- A priority list of how a 10% budget cut in FY 1999 and FY 2000 would be accommodated.

Guidance on Institutional Presentations:

The presentations on institutional plans should provide an overview on the role of the institution in the fusion program and cover all proposed work that is not part of the program of one of the major devices (e.g. theory, diagnostic development, international collaboration, or small experiments). Each presentation should include the following:

- An overview of research plans for FY 1998, FY 1999, and FY 2000;
- Comprehensive institutional staffing levels and proposed budgets (i.e. include the staff and budgets for work on major facilities for completeness); and
- A discussion of institutional issues.

[i] 1) Magnetohydrodynamic Equilibrium, Stability, and Dynamics; 2) Transport Processes; 3) Plasma-Wall Interactions; 4) Wave- and Particle-Plasma Interactions; 5) Burning Plasma Physics; and 6) Composite Issues.

General guidance for national labs (submitting Field Work Proposals) and major facilities:

Please remember that the primary purpose for the meeting is to provide budget and programmatic information to OFES program managers for preparing the FY 2000 budget. In order to get this information and keep the meeting on schedule, we want all presentations to focus on the proposed work, budgets, and plans. Please limit your discussion of recent results to a single page of highlights. If you want to provide additional information, please do so in a handout.

In addition, we invite you to prepare an institutional summary table, which would list every FWP submitted. This table should list the task number, task description, and requested budget for each FWP. This table will help us indicate which tasks are funded and which are not in the initial program letters.

Please provide OFES with 12 bound copies of your draft Field Work Proposals 1 week prior to the meeting for office use. Please share information on your proposals and programs with your colleagues at other institutions through electronic file exchanges or by handouts at the meeting.

As usual the presentations will be open to all of DOE/OFES staff, DOE/Field Office staff, and to representatives from the other institutions. This serves a second purpose of the meeting, which is to promote information exchange and programmatic interactions among the programs and the institutions. This time we have included a broad cross section of the alternates and university programs for this purpose. However, I ask that you ensure that only people who need to attend the meeting travel to DOE. Please e-mail a list of all possible attendees to Marty Carlin (carlin@er.doe.gov) to allow faster access into the building.

I have asked Erol Oktay to coordinate this meeting. Please feel free to communicate your suggestions and questions on the organization of the meeting to Erol at (301) 903-4928 (e-mail: oktay@er.doe.gov). I look forward to meeting with you in March.

John W. Willis, Director
Science Division
Office of Fusion Energy Sciences
Office of Energy Research

Attachment 1

D R A F T

Field Work Proposal Review
Germantown, MD. March 10-11, 1998

March 10, Tuesday

09:00	Opening Comments	John Willis
09:10	DIII-D	Tom Simonen et. al.
10:30	C-MOD	Ian Hutchinson et. al.
11:30	NSTX	Martin Peng et. al.
12:30	**Lunch**	
01:30	IFE	Roger Bangerter
02:15	MST/RFP	Stewart Prager
02:45	HSX	Dave Anderson
03:05	Pegasus	Ray Fonck
03:25	LCT	Bob Taylor
03:45	**Break**	
04:00	SSPX	Dave Hill
04:15	FRC	Alan Hoffman
04:30	HBT-EP	Gerald Navratil
04:45	Levitated Dipole	Mike Mauel
05:30	**Adjourn**	

March 11, Wednesday

Proposed New Programs

09:00	Computer initiative	Bill Tang
09:30	Stellarators	Jim Lyon
10:00	Magnetized Target Plasmas	Dick Siemon

Miscellaneous Topics

10:30	Virtual Technology Laboratory & ITER	Charlie Baker
11:00	International Collaborations	Ned Sauthoff
11:30	Tokamak Roadmap	Tom Simonen
11:45	Planning of "Forum for Discussion of Next-Steps in Fusion"	G. Navratil
12:00	**Lunch**	

Institutional Presentations

01:00	PPPL
01:45	GA
02:15	MIT
02:30	ORNL
03:00	LLNL
03:15	**Adjourn Budget meeting**
03:30	Meeting of Program Directors and Advisory Committee chairs
05:30	**Adjourn**

PERFORMANCE MEASURES:

The Fusion Energy Sciences program supports the Department's strategic goal of delivering the scientific and technology innovations critical to meeting the Nation's energy challenges. The performance measures of the Fusion Energy Sciences program fall into four areas: (1) excellence of the science, (2) relevance to the DOE mission and national needs, (3) stewardship of research capabilities, and (4) human resource management.

For FY 1999, specific performance measures are:

1. An independent assessment will judge Fusion Energy Sciences research programs to have high scientific quality.

2. Major operating experimental facilities will have research teams, which have participants from throughout the fusion science community. Assessments of research quality and program relevance will be provided to the performers by program advisory committees (PACs).

3. The National Spherical Torus Experiment (NSTX) project at Princeton Plasma Physics Laboratory (PPPL) will be completed and a national research team organized. The facility will begin experimental operations by the 3rd quarter of FY 1999 and the NSTX Program Advisory Committee (PAC) will provide guidance to PPPL for initial operations.

4. Theory and modeling efforts will result in state-of-the-art computational tools which are used to analyze experimental data and to suggest innovations. Standardized software and hardware configurations will be developed to allow national and international remote collaborations.

5. The Fusion Energy Sciences program will have a broadly based innovative concepts program including world-class experimental facilities integrated with theory and modeling.

6. The Technology program subelement will be restructured in FY 1999 to focus on domestic fusion program needs while maintaining strategic participation in international collaborative activities including appropriate participation in a restructured ITER project following completion of the current Engineering Design Activities.